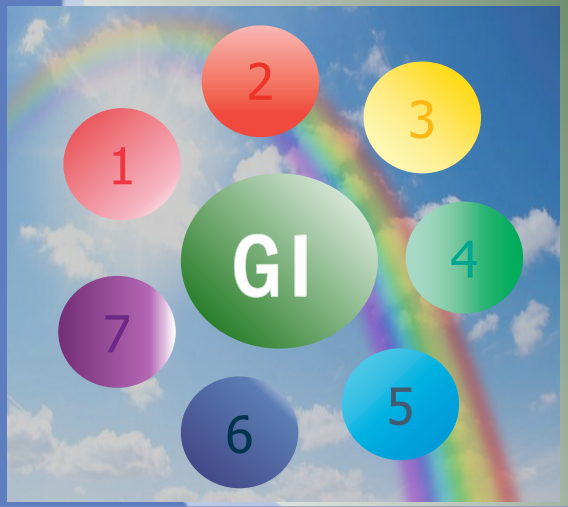
What is Green Infrastructure?

Green infrastructure refers to systems that use vegetation, soils, and/or natural processes to manage stormwater by keeping it where it falls, creating more sustainable, healthier communities.

A SUSTAINABLE STRATEGY FOR CLEAN WATERWAYS

Types of Green Infrastructure



1. Green Roofs
2. Bioswales
3. Rain Garden /Bio retention pond
4. Green Parking / Pervious Pavement
5. Stormwater Planters
6. Rainwater harvesting /Downspout Discon
7. Stormwater regulations — Ordinance Chapter 227, SWPPP's and URRPS's

STORM WATER

STORMWATER IS MANAGED USING STORM SEWER AS WELL AS BEST MANAGEMENT PRACTICES, WHICH INCLUDE GREEN INFRASTRUCTURE AND LOW IMPACT DEVELOPMENET

References and Additional Resources

- ASFFM-1in100chance-FFpapers.pdf
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- https://www.epa.gov/sites/production/files/2015-10/documents/climate_res_fs.pdf
- https://www.epa.gov/sites/production/files/2015-02/documents/gi_brochure_508_compliant.pdf
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- http://www.binghamton-ny.gov/ordinance/erosion-control
- http://www.binghamton-ny.gov/illicit-discharge-detection-and-elimination
- http://www.binghamton-ny.gov/departments/planning-housing-community-development/planning-housing-community-development
- http://www.binghamton-ny.gov/stormwater-management

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City of Binghamton

Informational Brochure

GREEN INFRASTRUCTURE

The Problem!

It is raining, now what?

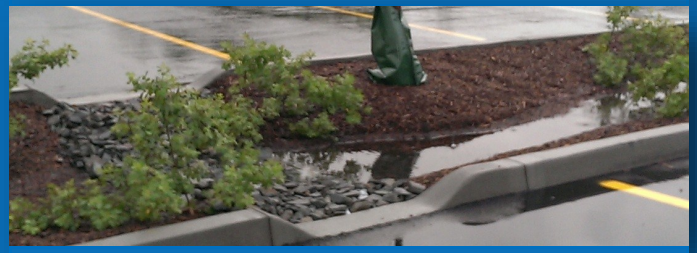
Water from rain or melting snow that doesn't soak into the ground but runs off into waterways is stormwater. It flows from rooftops, over paved areas and bared soil, and through sloped lawns while picking up and collecting pollutants like motor oil, lawn chemicals, sediments, and pet waste to streams, rivers, and lakes.

Pollution conveyed by stormwater degrades the quality of drinking water, damages fisheries and habitat of plants and animals that depend on clean water for survival.

What can we do?

Conventional stormwater infrastructure, or gray infrastructure, is largely designed to move stormwater away from urban areas through pipes and conduit. Alternatively, Green Infrastructure uses natural processes to reduce and treat stormwater in place by soaking up and storing water. Green Infrastructure provides many environmental, social, and economic benefits that promote urban livability.

GREEN ROOF at 2 Court St. By HAAS Landscape Architects



BIO RETENTION at Pennsylvania Ave. By HAAS Landscape

RAIN GARDEN

PERMEABLE PAVEMENT AT SOUTH SIDE COMMONS

DOWNSPOUT DISCONNECTION + MORE ....

Benefits of GI

Higher Water Quality: by soaking up and storing water in place, green infrastructure reduces stormwater discharges. Lower stormwater volumes mean reduced gray infrastructure sewage overflows and lower pollutant loads. Infiltration and storage of stormwater can also help remove pollutants.

Increased Water supply: Harvested rainwater can be used for outdoor irrigation and certain indoor uses thereby significantly reducing municipal water use. Water infiltration practices also recharge groundwater reservoirs.

Reduced Flooding: a marginal reduction.

Reduced Private and Public Costs: Green Infrastructure can reduce a community's infrastructure costs, promote economic growth, and create construction and maintenance jobs.
Lower costs for site grading, paving, and landscaping, and smaller or eliminated piping and detention facilities provide savings for developers.
In some areas of The City of Binghamton with combined sewer systems, green infrastructure can cost less than conventional controls, and their implementation can reduce stormwater infrastructure costs.

Increased Property Values: Green infrastructure increase the market value of a property.

Health Benefits: More green space and parks encourage outdoor physical activity, reducing obesity and preventing associated chronic diseases, such as heart disease, high blood pressure, stroke, Type II diabetes, arthritis, and certain kinds of cancer.

Recreation Space: Vegetation and trees can increase publicly available recreation areas, allowing urban residents to enjoy greenery without leaving the city. Additionally, vegetation and permeable pavements can reduce noise pollution by damping traffic, train, and plane noise.